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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/781,310

02/13/2001

Joseph Breeden

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EXAMINER

COLBERT, ELLA

ART UNIT

PAPER NUMBER

3696

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/781,310	<b>Applicant(s)</b> BREEDEN ET AL.	
	<b>Examiner</b> Ella Colbert	<b>Art Unit</b> 3696	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 67, 88-92 and 94-96 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 67, 88-92, and 94-96 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 67, 88-92 and 94-96 are pending. Claim 67 has been amended in this communication filed 08/28/08 entered as Response After Non-Final Action (informal or non-responsive amendment).

#### ***Claim Objections***

Claim 67 is objected to because of the following informalities: Claim 67 recites "A method of predicting the behavior of a group ...". The preamble of this claim should recite "A method of predicting a behavior of a group ...". The first time that "behavior" is mentioned it should be "a behavior". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 67, 88-92, and 94-96 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The following elements were briefly mentioned in the Specification: loan accounts, age, seasonal effects, and decomposing. Mainly the external impacts of the scaling factors, the scale factor correlation in relation to the demographics, the process, the external analysis, the forecasting, and implementation of the process are discussed in the Specification.

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However, the claim limitations do not have sufficient support in the Specification.

Applicants' are respectfully request to point out in the Specification where the claim limitations are located and where there is sufficient support.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 67 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear and indefinite as to what the other component is that is not related to the age of the loan account. Do Applicants' mean the other component is the exogenous effects (exogenous factors)? Claim limitation (c ) is confusing reciting "... said age component and said component not related to said age component irrespective of data regarding any of the borrowers on any of the individual loan accounts". It is vague and unclear how the age component can be related and then not be related to the age component and data regarding any of the borrowers ...".

"An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed ...". *In re Zletz* 13 USPQ2d 1320 (Fed. Cir. 1989).

Claims 88-92 and 94-96 are also rejected for their dependency from a rejected claim.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 67, 88-92 and 94-96 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Based on Supreme Court precedent (Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780, 787-88 (1876)) and recent Federal Circuit decisions, § 101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing (the Supreme Court recognized that this test is not necessarily fixed or permanent and may evolve with technological advances. Gottschalk v. Benson, 409 U.S. 63, 71 (1972).

If neither of these requirements is met by the claim(s), the method is not a patent eligible process under 35 U.S.C. § 101.

In this particular case regarding the first test, in performing the steps of the claimed subject matter, there is no requirement that a machine be used, thus the claims are not considered sufficiently tied to another statutory class.

There is merely a hint of a device in the claim limitation of claim 67. However, a processor as recited in the claim limitation can be a person who is the processor.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 67 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,078,903) Kealhofer in view of (WO 99/03052) Freeman et al, hereafter Freeman.

As per Claim 67, Kealhofer discloses, A method of predicting the behavior of a group of vintage loan accounts, the method comprising the steps of: (a) receiving vintage performance data of said past loan accounts (col. 3, lines 42-65). Kealhofer further discloses, Step (b) decomposing said vintage performance data of said loan accounts by age component and a component not related to the age of the loan account, wherein steps (a) and (b) are performed by a processor (col. 4, lines 11-67). Kealhofer failed to disclose, Step (c ) forecasting the behavior of said vintage loan accounts based upon said age and said component not related to said age component irrespective of data regarding any of the borrowers on any of the individual loan accounts. Freeman discloses, Step (c ) forecasting the behavior of said vintage loan accounts based upon said age and said component not related to said age component irrespective of data regarding any of the borrowers on any of the individual loan accounts (Page 23, line 3-Page 24, line 11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kealhofer with the teachings of Freeman because such a modification would allow Kealhofer to have loan vintages with origination dates that are on average the same age (page 7, lines 14-16-Freeman)

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With respect to claim 88, Kealhofer discloses, The method as recited in claim 67, wherein step (b) comprises decomposing said vintage performance data of said loan accounts by age component and one or more exogenous effects (col. 5, line 65- col. 6, 62).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 89, 90-92, and 94-96 are rejected under 35 U.S.C. 103(a) as being unpatentable over (US 6,078,903) (US 6,078,903) Kealhofer in view of Official Notice.

With respect to claim 89, Kealhofer failed to disclose, The method as recited in claim 88, wherein step (b) comprises decomposing said vintage performance data of loan accounts by an age component and seasonal effects. Official Notice is taken that it is considered well known that for example, more people are unemployed in the winter as opposed to the summer because people who work in construction work do not usually work during the winter.

With respect to claim 90, Kealhofer discloses, The method as recited in claim 88, wherein step (b) comprises decomposing said vintage performance data of said loan accounts by an age component management actions (col. 8, lines 13-65).

With respect to claim 91, Kealhofer discloses, The method as recited in claim 88, wherein step (b) comprises decomposing said vintage performance data of said loan accounts by an age component and competitive influences (col. 9, lines 1-14).

With respect to claim 92, Kealhofer discloses, The method as recited in claim 88, wherein step (b) comprises decomposing said vintage performance data of said loan accounts by an age component and marketing campaigns (col. 10, line 16-col. 11, line 8).

With respect to claim 94, Kealhofer discloses, The method as recited in claim 88, wherein step (b) comprises decomposing said vintage performance data of said loan accounts by age component and economic conditions (col. 11, line 14-27).

With respect to claim 95, Kealhofer discloses, The method as recited in claim 88, wherein step (b) comprises decomposing said vintage performance data of said loan accounts by an age component and management history (col. 5, lines 9-col. 6, line 39).

With respect to claim 96, Kealhofer failed to disclose, The method as recited in claim 88, step (c ) includes the step of determining the demographic characteristics of said past loan accounts in order to predict the future performance of said vintage loan accounts. Official Notice is taken that it is old and well known to determine the demographic characteristics of past loan accounts in order to predict the future performance of vintage loan accounts. It would have been obvious to one having ordinary skill in the art at the time the invention was made to determine the demographic characteristics of past loan accounts and predict the future performance of



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vintage loans accounts because depending on the region of the country the past loan accounts may go into default or they may perform well and the economic influences.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tom (US 5,696,907) disclosed risk and credit analysis of financial service applications.

Starkman (US 2001/0032158) disclosed loan collections.

NPL references: "Empirical orthogonal functions"; "Legendre polynomials"; "Discrete Fourier transform".

*The Examiner has pointed out particular references contained in the prior art of record within the body of this action for the convenience of the Applicant(s). Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply. Applicant(s), in preparing the response, should consider fully the entire reference as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.*

Remarks: It is noted that Applicants' were silent regarding the Examiner's taking of Official Notice. MPEP 2144.02 states "If Applicant does not traverse the Examiner's assertion of official notice or Applicant's traverse is not adequate, the Examiner should clearly indicate in the next Office Action that the common knowledge or well-known in

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the art statement is taken to be admitted prior art because Applicant either failed to traverse the Examiner's assertion of Official Notice or that the traverse was inadequate. If the traverse was inadequate, the Examiner should include an explanation as to why it was inadequate."

### **Inquiries**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 571-272-6741. The examiner can normally be reached on Monday, Tuesday, and Thursday, 5:30AM-3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dixon Thomas can be reached on 571-272-6803. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Ella Colbert/  
Primary Examiner, Art Unit 3696

December 29, 2008